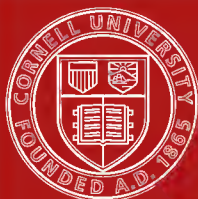


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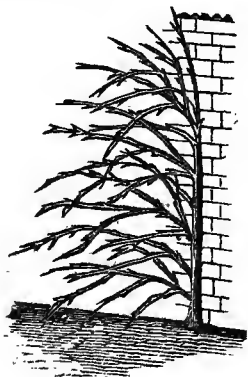




# The Apricot:

ITS HISTORY, VARIETIES, CULTIVATION, AND  
DISEASES.

ILLUSTRATED.



BY D. T. FISH

(Author of "Pruning, Grafting, and Budding Fruit Trees," "Bulbs and Bulb Culture,"  
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# The Apricot.



## INTRODUCTION.

THE apricot, or, as the older writers termed it, the “apricoke” (*Prunus Armeniaca*, or *Armeniaca vulgaris*), is a most important genus of the great natural order Rosaceæ (*Rupaceæ*, Lindley). It is scarcely inferior to the peach and nectarine in the lusciousness and beauty of its fruit; while not a few prefer it to these and all other fruits. It is supposed to have been introduced into Europe from Armenia, China, or Japan at a very early period—probably previous to the Christian era. The tree seems to have been highly valued in the East for the earliness of its flowering and the beauty of the bloom, as well as for the qualities of its fruit. For mere ornamental effect, however, the tree is decidedly inferior to the almond and the double-flowering peach, though it is said there are also double flowering apricots in the East. But the Roman name of the apricot, *Præcocia*, seems to show that this tree was perhaps chiefly prized as being the earliest flowering, and some, in fact, have endeavoured to trace the modern name apricot back through a series of corruptions or changes until they reach the Italian *Præcox*, or early. Be this as it may, the origin of the name apricot is not certainly known, and until about a century since it was generally spelt “apricoke.” The tree was well known in Italy from the earliest times, and was, no doubt, introduced into Britain by the Romans. If so, however, it doubtless shared the fate of a good many tender and choice exotics, and was lost or swept away by the storms and strifes of the civil and internecine wars that raged so furiously for centuries after the strong hand of the cultured conqueror was withdrawn.

It seems probable, however, that the apricot has been cultivated in England since the middle of the sixteenth century. It is said to have been re-introduced by Wolffe, a French priest, from Italy into England in the reign of Henry VIII.; but, as neither during Henry's reign nor that of his illustrious and imperious daughter Elizabeth, could much time or care be devoted to the culture of such precocious and tender fruit as the apricot, it made but little progress. Nor is this to be wondered at, for we find such an accomplished horticulturist as Parkinson, in his "Theatre of Plants," writing as follows about the apricot. He remarks "that none of them are grown naturally in our country, but in orchards for their private possessors, or in the hedges, woods, or other places in the fields and parks." It will be observed that nothing is said of the necessity for walls, so it is not likely that many of these early cultivators ever tasted a good apricot, unless they happened to live in the southern counties. Parkinson goes on to remark that the apricot flowers a month or more before any of the plums, and that the fruit is ripe at Lammas-tide. The tree is one of the earliest flowering ones, and is generally in advance of the blackthorn or sloe, which is in bloom in favourable situations early in March. No doubt this latter fact acted as a check to the extensive cultivation of the apricot. Modern cultivators find it difficult to save the apricot blooms from destruction on warm and sheltered walls, partly, no doubt, for this reason, the culture of the apricot seems to have made far less progress than either the peach or the plum. Our treacherous springs rendered crops most problematical; while it is probable that, owing to unskilful treatment and culture, and the growth of inferior varieties, the fruit were mostly of inferior quality. From these, and possibly other causes, the apricot seems to have made slow progress in general esteem. As late as the beginning of the seventeenth century there were but six varieties of apricots grown in British gardens. A century later but one more apricot was added to the list. At the beginning of the present century the list had only been doubled. Fifty years ago the collection of apricots in the gardens of the Royal Horticultural Society at Chiswick numbered seventeen. But the late Mr. Robert Thompson cut down the list to ten in his "Gardener's Assistant," published in 1859. And up to the present time apricots have not been greatly multiplied or improved by the addition of new and superior varieties. True, some modern lists contain more names than the old ones; but most of the best growers content themselves with offering from eight to a dozen varieties. One of the greatest improvements that could be effected among apricots would be the introduction or production of late-flowering varieties. Were it possible to have apricots that would flower in May instead of March, no



doubt they might then be grown as standards throughout the greater part of the kingdom. The tree itself is evidently pretty hardy, but its blossoms cannot withstand the killing severities of our spring frosts.

The fruit when well ripened is well known as one of the highest ornaments and most luscious fruits of the dessert. Its golden colour forms a pleasing contrast to other fruits, and its flavour is equally unique and gratifying. It contains less acid than most stone fruits, and not a few too delicate to use these eat apricots with pleasure and impunity. Both the form and colour of apricots also contrast admirably with peaches, nectarines, plums, cherries, grapes, and, in fact, all fruits used for dessert.

Apricots also make one of the most rich and popular preserves. Perfectly ripe apricots need less sugar and less boiling than almost any other fruit ; perfectly ripe and dry, a little over  $\frac{1}{2}$  lb. of loaf sugar to 1 lb. of fruit is sufficient. The fruit should neither be broken down nor mashed up any more than can be avoided ; it is only needful to halve the fruit and remove the stones. The action of the sugar and heat arising from half an hour or three-quarters' boiling will do the rest. The sugar will penetrate the flesh of the apricots, while the riper fruit will dissolve so as to form rich golden syrup to convert the whole into a solid mass of jam or jelly. Such preserves are far more delicious to eat, as well as richer to look at, than that broken up in the making in the usual way. It is customary to add the kernels in halves, or further reduced, to the jam shortly before it is finished, or to sprinkle them over the pots after they are filled. This gives a rich appearance and a nutty flavour to apricot conserve that is generally much appreciated. After filling the jars they must be made air-tight. The general plan is to leave them till cold, and then tie down with bladder or thick paper ; but a better and easier method is to dip paper the proper size for the jars in white of egg, lay these flat over the top, and bind down over the side about  $\frac{1}{2}$  in. all round. By doing this at once, the heat of the jam and the jar sets the albuminous matter of the egg at once, and fastens it firmly to the jar. The whole is then made air-tight, and the egged paper becomes as stiff as a board, and is quite as impervious to air as the thickest bladder. Jam thus put down and kept in a dry place will remain sweet and good for two or three years.

Apricots may also be preserved whole. For this purpose they should not be dead ripe, and should be stewed in syrup over a quick fire for twenty minutes or half an hour. The stones are generally taken out previously. Such fruit can be kept in jars, like preserves, or placed in wide-mouthed bottles securely corked. Apricots preserved thus make a beautiful sweet fruit for the dessert. Apricots may also be preserved by being merely stoned, halved, and placed in bottles securely corked and steamed like other fruits. Preserved in this way they are most useful

for tartlets, compotes, &c., when wanted. Fruit a little under-ripe also preserves well in brandy, like peaches, cherries, or other fruits. A large trade is also done in dried apricots. For this purpose green as well as the ripe fruit are used. The fruit is carefully dried in the sun or by artificial means, and dusted over thickly with pounded loaf sugar. When these processes are completed the apricots are packed away in air-tight boxes until wanted for use. Apricots treated thus are among the richest and most pleasant of all conserves. Some varieties are better adapted for drying than others, and large quantities of the Musch-Musch apricot are grown in Egypt expressly for this purpose, and are dried in a similar way to the enormous quantities of figs which are cultivated in the East and prepared for the English markets. The green apricots are, of course, first boiled in syrup to give them the necessary sweetness before they are sprinkled with sugar, and dried in the same way as the ripe ones. Not a few English housekeepers and cultivators use green apricots for preserves as well as for tarts. They are rather too fully flavoured with prussic acid to suit all constitutions and palates, but those who enjoy the flavour of bitter almonds are generally partial to green apricots. For preserve, a full pound of sugar to a pound of fruit, and quite an hour's boiling is needful to break down the fruit. In tarts everyone can sugar or flavour to taste. A little cream with the sugar mellows the hard flavour of the prussic acid, and renders green apricots more palatable. It takes nearly an hour and a half to cook green apricots, and the paste should not only be light but thin. The ripe fruit also make beautiful tartlets, compotes, &c.

The kernels of the apricot are also very pleasant to eat, and some of them, such as Musch-Musch, have kernels sweet as a nut. Others are more bitter, but the bitterest apricots are sweet contrasted with the kernels of peaches or bitter almonds. A mild sort of oil has also been expressed from apricot kernels, though it has never attained to anything like the commercial importance of oil of almonds. A thick syrup has also been prepared from apricots, which forms a cool, appetising, refreshing beverage. It seems, however, that the medical virtues of the apricot are almost *nil*. Parkinson, who attributes virtues enough to most plants to fill many pages of "The Pharmacopœia," has next to nothing to say of the medical merits of the apricot. The fruit, when fully ripe, is, however, peculiarly agreeable and wholesome, and may be eaten by women, children, and invalids, with less risk of injury than almost any other. At one period, too, the bark and young wood of the apricot had a certain commercial value as a dye for wool, but now that modern science has forced coal tar to give up its almost inexhaustible wealth and infinite variety of colouring matter, the apricot may be said to

be grown for its fruit alone. And it may be affirmed of that fruit without exaggeration that it is the most beautiful to look upon and most luscious to eat of any that can be grown in the open air in our climate.



## VARIETIES.

As already stated, the varieties of this fruit are not very numerous, so that the difficulty of selection is far less than with most other fruit, such as apples, pears, and peaches, that have been already dealt with. With all these the great difficulty has been to select a limited number of the best out of a vast quantity of good varieties. In apricots this difficulty is hardly felt, and our readers may safely plant the following in the order in which they are named. The first on the list will probably excite considerable surprise. But the writer considers it by far the best apricot in cultivation, as superior almost in flavour to a Moorpark as a gage is to other plums, and hence it is placed first on the list:—

1. *Kaisha*.—Fruit almost round, considerably smaller than the Moorpark. Colour pale citron, marbled at times with red next the sun. Flesh tender, rich, sugary; flavour delicate and most delicious. The kernel is also almost as sweet as the filbert.

2. *Moorpark*.—This is the apricot most generally grown. It is large and handsome and of good quality. Colour brownish orange; flesh rich, juicy, and sweet, though lacking the extreme delicacy and vinousness of flavour of the *Kaisha*. The mere size of an apricot may also prove a drawback to its merits, as seems to be the case often with this fine variety. One side and the upper end of the fruit is frequently over-ripe, and even shows signs of decay, while the side next the wall, and especially the base of the fruit, continues hard, harsh, and green. Unless these unfinished portions are cut away during the process of preserve making, the quality of the conserve will be seriously lowered. This is, however, notwithstanding this drawback, one of the best doing and most useful apricots in cultivation. There is also an early variety of the Moorpark, which seems identical with it in all respects, excepting that it ripens a fortnight or three weeks earlier—a point, however, of great moment in the continuous supply of families with this most useful fruit for dessert,

3. *Royal*.—This is a good deal like the Moorpark, but has a more robust constitution, and is less given to limb dying—the greater and most provoking weakness of apricots—than that favourite variety. It also ripens about a week before the Moorpark. Colour dull yellow, epeckled with red next the sun; flavour rich, juicy, sweet, and good.

4. *Turkey*.—This is also a popular variety with many, though not so sweet as either of the others; the kernels are also sweet. Colour, pale yellow; flavour rich and juicy; flesh firm, and excellent for dessert or preserving.

5. *Hemskerk*.—This is also a good hard variety, which stands better in many localities than the Moorpark, which it resembles a good deal, though considered inferior to it by some.

6. *Peach* (or *Grosse Peache*).—This is a very distinct and admirable variety, the fruit very large; flesh rich, firm, and juicy.

7. *Rivers' Golden Drop*.—This is a delicate delicious apricot, of a rich golden colour and excellent flavour.

8. *Musch-Musch*.—Fruit rather small; colour pale lemon, which generally indicates high flavour, changing to deep orange tinted with red next the sun. Kernels remarkably sweet.

9. *Breda*.—This is also a small apricot of excellent quality, especially for preserving; the kernels are also sweet. Colour deep orange; flesh firm, juicy, and rich; excellent for preserving. This is probably the hardiest apricot grown, and is the only one that thrives as a standard in warm and sheltered situations in our climate.

10. *Blenheim* (or *Shipley*).—Very early and prolific, but not equal to the Moorpark in quality; colour deep yellow; flesh medium, rich, and juicy; ripens about the middle of July.

11. *Large Red*.—This is the deepest coloured of all the apricots. Fruit very large; colour deep reddish orange; flesh rich and juicy; kernel bitter. Makes a rich high coloured preserve.

12. *Blanche* (or *White Masculine*).—This is a small delicate-fruited rich apricot, but little grown. The fruit is of a pale yellow-whitish colour, tinged with brownish-red next the sun, and covered with a fine white down or hair. The flesh adheres somewhat to the stone, but is rich, delicate, and sugary, with something of the rich vinous flavour of the Kaisha.



## PROPAGATION.

THERE are but two general modes of propagating the apricot—by seed and by budding. It may also be propagated by grafting, like the apple or pear, but this last mode of propagation should never be employed with stone fruits, unless for some special or exceptional purpose, as the wounding or slitting of the bark involved in grafting induces gumming, and is a fertile source of canker and other diseases.

### *I.—By Seed.*

MOST varieties of apricots, and especially the Moorpark, come pretty true from seeds. Over 50 per cent. of the seedlings will come Moorpark, with trifling differences, which will hardly affect either the constitution or the produce of the trees; and as the plants are easily raised and speedily proved, it is easy to weed out those that prove inferior to the parent stock. By carefully selecting the stones of the finest fruit of the Moorpark, Kaisha, and other fine varieties, not only might these be perpetuated true enough for all practical purposes from seeds, but these varieties might be improved, and other and superior sorts originated. It seems singular that between two families so nearly related as the peach and the apricot the former seldom or never reproduces itself truly from seed, the latter so generally as to render seed a most useful mode of propagation. Plants so raised are also far more healthy, free from diseases and longer-lived than those budded or propagated in the usual way. Limb perishing and canker seldom attack seedlings, and certainly never with such virulence as they do worked plants.

The general mode of raising apricots from seeds is to place the stones in earth as soon as the fruits are gathered and used. If in any quantity, the best mode is to stratify them or interlayer them with soil, covering the entire mass over with from 4 in. to a foot of earth. They may lie in this state until February, when they should be sown in rows or beds in the usual way. As the apricot is an early-growing tree, it will hardly be safe to leave the stones in heaps later than that month. The stones may also be sown in the ground as soon as the fruit is ripe, in August or September. The seeds should be covered with about 2 in. of soil, and, should the winter prove very severe, a few inches of litter might be spread over the apricot seeds to prevent their being frozen. Should a long cold season set in, it will also be needful to guard the seeds against the

ravages of rats, as these vermin will prey greedily on such sweet kernels as those of apricot seeds.

During the first season's growth the seedling apricots will need no attention but keeping clear of weeds. It is also important not to sow the seeds too thickly together, so that the plants may have room to grow freely without weakening each other.

After one season's growth the plants should be lifted or the tap roots slightly cut back if the trees are intended for walls. They should then be planted in nursery lines, about a yard apart between the rows and 2ft. from plant to plant, to make a freer growth when moulded into shape, according to the form or character of the trees desiderated by the cultivator. The slight root-pruning will multiply the number of the roots, and tend to establish a fibrous habit of root growth, which proves most favourable to the future fertility of the trees; but for standard trees in the open the less root-pruning or transplanting the better. For such trees, and also for amateurs, who are seldom skilled in the transplanting or root management of trees, there is no better method of raising seedling apricots than the planting of the stones by the sides of walls or in other places where the trees are wanted; this will avoid many serious risks of failure, for the removal and root-pruning of apricots and other stone fruit are less simple and easy than in the case of apples or pears.

Of course, those who thus sow their apricots where they want their trees to grow will see first that they have made a proper preparation for the plants. Success can hardly be expected from merely dropping in a few seeds in the blank spaces in the front of a wall, that has grown apricots for so many years as to leave every inch of soil impoverished of apricot food, and thoroughly sick of and incapable of growing the crop. Not a few gardens are far more in need of more soil than fresh trees. The soil for the raising of apricots should be rather light and rich—lighter, in fact, and richer than the unctuous loam, as it is called, which is the very best soil for growing and fruiting the mature trees to the highest perfection. It is important to get a vigorous, healthy growth from the first. Hence, in sowing in special nursery beds or lines, such soil as above indicated should be chosen; but in planting in permanent places the soil of the border will do very well for the raising of the seeds.

A few of the seedlings will often show such wide diversity of form from the finer cultivated varieties that they may either be thrown away at once or reserved for budding with the Kaisha, Moorpark, or with good types of seedlings; for though apricot stocks are not, as a rule, used for apricots, there seems no reason why, as the apricot roots freely, and it would probably prove the most suitable of all stocks for our climate, and far better and more durable than most of the plums that are used.

## *II.—By Budding.*

THIS is still the most general mode of propagating apricots. They are frequently budded on seedlings and also on plum stocks. But as apricots are easily raised from seeds, and root as freely and are as hardy as plums, there is no reason why they should not be more generally used as stocks. Plums, however, are more usually employed in the nurseries for this purpose, the varieties generally used being the Mussell, Saint Julien, Brussels, black damson, and others.

The apricot is a precocious tree, and may generally be budded early in the season, about the same time as roses, that is, from the beginning to the middle of June. For dwarf trees the stock should be budded at a distance of about 1ft. from the ground. There is no advantage in having any great length of stem, but the reverse. By budding near to the ground the lower branches may also be much encouraged at first by being slightly inclined in an upward direction. This will enable them to keep that supremacy of growth for life which will preserve the symmetry and beauty of the trees. What are termed rider and half-rider trees may be budded at any desired height, the usual height of stem of the latter averaging from 2½ft. to 3ft., and of the former from 3½ft. to 5ft. or 6ft. These tall riders are remarkably useful for the clothing of tall walls. They are far less used than they should be, as there is often a great waste of space in the clothing of such, and space and time are both valuable, and trees remarkably cheap. Besides, apricot and other trees often fruit far more freely when trained downwards than in any other direction. The mere reversal of the growing branches favours fertility. The budding of apricots is simply and easily performed, provided the bark of the stock runs freely and that of the scion is of sufficient consistency to separate readily from the wood without bruising. The buds take readily and with few failures where careful manipulation is used. The tying material should be soft, and the ties themselves not made too tightly, as apricots, more than most stone fruits resent bruising or severe pressure by gumming or canker-ing. Of course, care must also be taken not to insert flower buds. These are far rounder and more prominent than wood ones. The latter are sharp and long rather than round, and are readily distinguished by those of any experience. As soon as the buds have taken and the bark is healed, the ties may be loosened or wholly removed. Some of the buds will also start into growth almost as soon as they have taken, and in such cases the head of the stock may at once be cut back to them, so as to enable the buds to produce and ripen shoots before winter. This,

however, as a rule, is not desirable. Should the buds take well and plump up prominently before the autumn, the dormant buds, as they are called, gradually form finer trees than those that break soon after insertion. To hasten and complete the development of the buds before winter, it is good practice to partially head back the growing stocks. This throws more strength into the apricot buds at their base and helps them to break strong the following winter. The general practice is to insert one bud only in the stock. It is often better, however, to insert two, or even three. Each of these produces a shoot of almost equal strength, and so form the foundation of the tree at once, without stopping the single shoot proceeding from one bud so as to force it to break into two or many.

Occasionally apricot trees are grafted. The grower is generally limited to any stocks on which the buds may have failed the previous summer. Such may be grafted early in the spring. In fact, it must be done early if at all, for the sap is in motion in the apricot before any other tree, and stocks and scions alike bleed ruinously if it is attempted to graft apricots too late in the season. Very firm and closely budded pieces of wood should be employed for scions, either the most mature wood of the previous year or a small wedge of this year's old wood at the base of the younger wood answers best. The scions should also have been cut off and laid in cool ground in the previous December, or early in January at the latest, and inserted in the stocks early in February, or even before, should the sap be found to be in motion. Common whip grafting is the best mode of grafting apricots. But, however skilfully performed, it is not comparable to budding, inasmuch as, however perfect the union may seem, gum or canker or a fault of some sort is almost sure to be developed at the junction of the scion and the stock. In the warmer southern counties, where apricots fruit as standards, seedlings raised from the Kaisha or Moorpark are to be preferred to worked trees of any sort; and next to these carefully budded trees on plum stocks worked about 4ft. from the ground. Such trees not only look better, but appear to fruit more freely than those nearer to the ground.

Worked trees that have made one season's growth are called maidens, and these, as a rule, are the best to plant, and about the fourth of the price of trained trees. The latter furnish more space at once, and so far have a decided advantage. Whichever description of tree is employed, every care should be taken of the roots at planting, neither should the tops be much reduced, if at all. The old plan of severely heading back all young trees cannot be too severely reprobated. It not only sacrificed time and vital force, but often laid the foundation of such diseases as finally undermined the health and destroyed the life of the trees.



## PLANTING.

*I.—Site.*

THE apricot is not so generally grown as it deserves to be. Where it thrives, it is not only one of the most desirable, but also one of the most profitable of all fruits. In warm localities and sheltered situations the produce of standard apricots has not seldom paid the rent of the garden or allotment. In colder districts a good apricot tree on the gable end of the cottage may be almost trusted to pay the rent of the house. The Breda and the Brussels are the best adapted for standards. But these can hardly be depended upon unless in a few of the more-favoured warm southern and western counties. The trees may be planted from 10ft. to 20ft. apart in the open ground, or bush apricots may also be tried in sheltered warm gardens in the open air. These have a decided advantage over taller trees, inasmuch as mats, canvas, nets, or other protectors may be thrown over them in the early spring. This power of helping the trees through the severities of our springs is in many situations the only hope of obtaining a crop of ripe fruit from standard apricots in the open air. But the wall space for apricots is much larger than for peaches. Southern aspects, or those walls with several points of south in them, may be said to be indispensable in most localities for the perfect ripening of peaches and nectarines. It is quite otherwise with the apricot. Throughout the greater part of England south walls are too hot for this comparatively hardy tree. The intense heat of such aspects seems to exhaust the fluids of the plant too rapidly, causing the evils of root drought, branch perishing, mildew, &c. Eastern and western aspects suit the apricot better, and the fruit has been ripened in warm localities on walls with several points of north in them. These facts are most important in their relation to the more extensive cultivation of the apricot. The fruit ranks next in commercial value to the peach and nectarine, and it would often prove a most profitable crop where either of these might fail. Large areas of garden wall, the walls of stables, barns, out-buildings, and two at least of the sides of hundreds of cottages might thus be utilised for the cultivation of apricots. Many of the largest and most fertile trees ever seen by the writer have been grown on the gable ends of cottages. Left to ramble almost at will over such, and to assume something of a half standard form, the young wood being doubly protected by the overhanging roof and the heat of the chimney, such trees often continue for years pictures of health and laden with fertility.

## *II.—Soil.*

The soil for apricots should be lighter than that for peaches. It is also equally or more important that the subsoil should be dry, for though the apricot consumes vast quantities of food and water when in full growth and fruitage, it cannot endure stagnant water at its roots, either in summer or in winter. If the situation is wet and cold, and the two are mostly synonymous, it must first of all be thoroughly drained before planting apricots. If well drained, almost any garden soil will grow these fine fruits to perfection; of course, light fibrous rather sandy loam is the best, but part of this added to almost any fair soil will answer well. Heavy soils may also be fitted for apricot culture by the addition of an equal portion of light loam, or some sand, mortar, rubbish, or charred refuse. There should also be a considerable depth of soil; a yard deep is not too much for apricots, provided it is on a dry base. The apricot forms many roots, and is very liable to suffer from mildew and other maladies when its supply of food or water runs short. As to the width of apricot borders, that should be regulated to a great extent by the height of the wall, and may range from 5ft. to 12ft.

In furnishing walls with apricot trees the distance apart may vary from 2ft. between cordons, to 12ft., 15ft., or even 20ft. between fan-shaped dwarf apricots. It is well, however, to plant rather close than otherwise, as apricots are shorter lived than most stone fruits, and have a marvellous weakness for breaking down quite unexpectedly and inexplicably. A double stock of trees should also be used on all walls over 5ft. high, so as to have at hand a double amount of vital or growing forces to furnish all or every part of it as rapidly as possible, and also make good blanks from branch and limb perishing. It is best also to plant maiden trees as a rule. These start off with more vigour than trained plants, and not seldom cover their allotted space as soon or even sooner, and also continue much longer in good health. The difference in price is also a consideration, maidens averaging 1s. or 1s. 3d. each, and trained trees from 3s. 6d. to 7s. 6d.

## *III.—Time.*

The best time to plant apricots is from the middle of September to the middle of November. It is the first tree to start in the spring, and also the first to ripen its wood in the autumn. As soon as the buds are fairly

plumped up and the leaves almost ripe, the trees should be planted; for it cannot be too often repeated that early planting means early rooting, and as soon as the roots of the newly planted tree lay hold of the new soil the health and life of the tree are insured. Preparing for planting thus early in the autumn, the borders can be re-made and the soil all prepared and incorporated in a dry and proper state, and before the autumnal rains break down its texture or convert it into semi-mud. The soil is well stored with summer heat, and this quickens the roots into a new and vigorous start at once. It is possible that the soil might prove very dry in September and October. In such cases the roots should be well watered home, and should the sun prove very hot, heavy overhead syringing in the afternoons would also refresh and greatly strengthen the newly planted trees. Of course, success is possible if the trees are planted at any season up to the end of January; but it may be taken as perfectly certain if completed before the end of November.

#### *IV.—Method.*

Of course, a good deal depends on the manner of planting as well as the time. It is impossible to handle the roots of plants, and especially of stone fruit trees, too carefully. The more quickly and carefully the whole dual process of taking up and replanting can be completed the better. Delays between these two often prove fatal. It is taken for granted that if the roots of plants are kept moist they take no hurt though out of the soil. This is quite a mistake. Water, damp moss, or litter are but poor substitutes for the earth round and among their roots, and the shorter the interregnum between the two earth homes of trees the better their chance of healthy and vigorous growth. The roots should also be carefully arranged in layers, interlayered at all points with fine soil, and the whole covered to a depth of three or four inches at the least. In the modern rebound from deep planting, not a few have run to the opposite extreme, and dragged most of their best roots on to the surface, where they become the sport of sun, frost, and drought, generally to their severe injury, not seldom to their total destruction. Not only should apricot roots have a good covering of suitable earth, but a secondary one of litter or cocoa fibre refuse, to render them frost proof in winter and drought and heat proof in summer. On dry borders, with southern aspects especially, not a few apricot trees are crippled by the intense heat of the sun on their roots. The position of wall trees

semi-baked on hot bricks, and with their roots also exposed to solar influences, is severely unnatural, and most trying to the health of apricots, and may be largely modified for the benefit of the trees by the surface mulching of the borders. Even surface cropping, however objectionable on other grounds, has at least this substantial merit in its favour, it keeps the roots warmer in winter and cooler in summer than they would be with an arid surface. The dead mulch, however, possesses all the advantages of the living covering, and without the counter evils of exhausting the soil, and serious injury to the roots, in the processes of surface cropping and harvesting of the crops. The making of the tops firm either to walls, fences, or stakes, completes the process of planting.



## TRAINING.

IN general terms, the apricot does best trained and pruned in a similar manner to peaches. Both are, however, much modified, according to the form and the size of trees wanted and the special objects desiderated by the cultivator. Standard apricots, grown in gardens or orchards, need little or no training, and almost less pruning after they are fairly established. During their earlier stages the one or more leading shoots should be shortened, so as to force the buds near their base to break out into from three to seven branches of almost equal strength, diverging somewhat regularly from the centre to the sides of the tree. With such a base, well and truly laid, the trees will generally furnish up well and grow into shapeliness and fertility without much further trouble. At times, however, abnormally strong branches will break out from different parts, mostly near to the centre of the heads, and these need to be cut away or back, otherwise they destroy the symmetry of the trees as well as lower the strength of other portions of it. (Fig. 1.) In regard to such trees, the chief energies of the pruner and trainer should be directed to the preservation of symmetry and the equalisation of strength. The trees themselves, enjoying the greater freedom of standards, will be certain to provide a sufficiency of well placed bearing wood without much or any

assistance from the cultivators, and few sights or crops are more pleasing or profitable than one of free grown standard apricots in the few localities where they do well in the open air or in orchard houses everywhere. (Figs. 2 and 3.)

The height of the stems of such trees may be regulated to a great extent by taste and convenience. For effect, however, they should not be less than 3ft. or more than 7ft. in the clear of stem. The latter are only fit for the centre beds of very lofty orchard houses. From 4½ft. to 5ft. is a good height. The next best semi-natural or free form for the apricots is that of a bush tree (Fig. 4). Plants for this style should be on their own roots or budded low. By stopping them once or oftener, they are first forced to form a base, and then readily grown into well furnished bushes, as in Fig. 4. These do well in warm nooks and corners, and on south or west borders under walls, where the climate is sufficiently genial. They possess one great advantage over standards, as they may

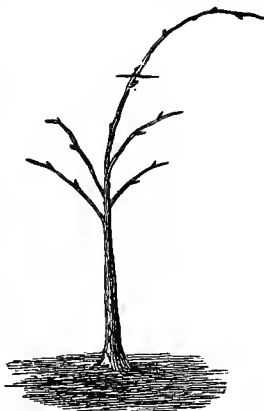


FIG. 1.



FIG. 2.

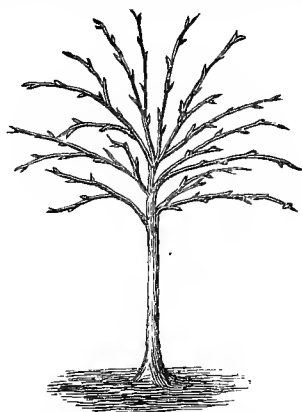


FIG. 3.

be sheltered with nets, mats, or canvas during the flowering period, or even temporary screens of glass might be placed over them from February

to the end of May. Our summers would generally be sufficiently warm to finish apricots in the open, in the greater portion of the southern parts of England, after that season. Of course, too, these bush apricots are invaluable for the side borders of lofty and the full furnishing of dwarf or small orchard houses. The smallest greenhouse, or even a common pit or frame, might be utilised for the growing of these dwarf apricots. Such low bushes mostly become exceedingly fertile. This style suits the character and habits of the apricot well. Bush apricots after a few years seldom need much pruning; they make comparatively little wood, stout, and short jointed, bristling with plump buds, brown as a nut, and almost as hard. Cultivators who have learned the wisdom of leaving well alone will practise little training and less pruning on such matchless material for fruit bearing. The weakest shoots may be removed to prevent overcrowding, the strongest shortened to preserve compactness

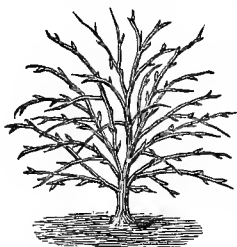


FIG. 4.

and symmetry of form. The annual removal of wood is less needed in apricots than with peaches and nectarines, for the apricot bears freely on spurs as well as on the young wood, and the whole of the tree, down to its old limbs, may thus, under skilful treatment, be furnished with golden fruit as well as leaves. But perhaps the most favourable and profitable mode of training the apricot is that of a sort of half standard, backed against the gable end of a cottage, stable,

or other outbuilding or wall. This mode of training combines all the highest merits of the usual fan training against walls and the health, freedom, and fertility of standards in the open air. The best way of forming such trees is to proceed as in the way of fan training. By stopping back the first shoot to three, five, or seven eyes, so many branches of almost equal strength will be produced. These should be distributed at about equal distances over the wall, and from these as principals, secondary leaders, or furnishing branches may be led off, until the wall itself is fairly covered, as with the more close and trim trained fan shaped trees. From this stage the half standard style is assumed. Instead of cutting off or laying in the young shoots, or what is technically called breast wood, these are allowed to grow out from the walls wherever sufficient space can be found for them, until the major portion of the growing wood of the tree may probably stand out from 18in. to a yard, or even 3ft. from the wall. On gable ends, with projecting roofs, the distance the young wood is permitted to grow

out is mostly determined by the width of the projection, and some of the noblest and most fruitful apricots in the kingdom are to be found

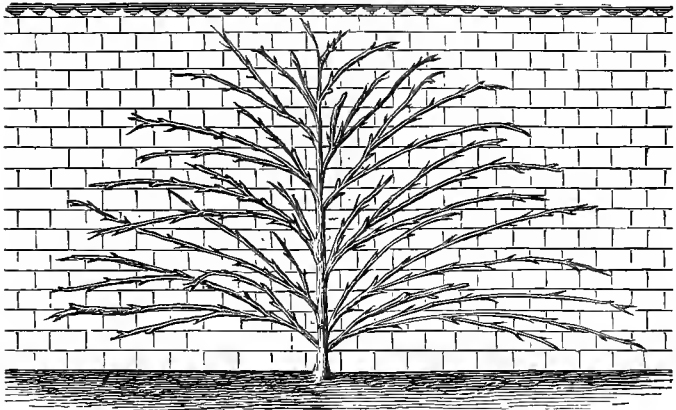


FIG. 5.

trained in this free and easy style on the gable ends of cottages (Figs. 5 and 6). Many cottages, especially thatched or rustic ones, have also wide projecting eaves. These provide most efficient protection for apricot trees of this description. Apart, too, from these adventitious aids to health and fertility, apricot trees of this character do remarkably well in genial localities. They are far more healthy and longer lived, as a rule, than those trained and pruned in the usual way. This possibly arises from their free style of growth, and the protective shade of their numerous branchlets guards against sunstroke on the main limbs, one of the most potent causes, probably, of branch dying. The quantity of fruit produced on such trees is enormous. The whole wall, and several feet beyond it, is, in fact, studded with bearing wood, and the result is so satisfactory that not a few single apricot trees have been known to pay the rent of the cottage and garden. In gardens the apricot, as a rule, is trained as a fan-shaped tree, similar to the peach and nectarine.

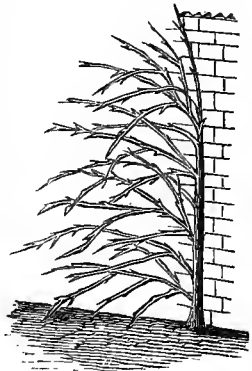


FIG. 6.

The old-fashioned method of forming such trees consisted in the growth, as a rule, of one strong shoot the first season. In the autumn or spring this shoot was cut back to within 6in. or a foot of its base. From this base, from three to five shoots, of as nearly uniform size and strength as could be obtained, were trained up the next season. This system is now looked upon as a loss of time and vital force. Hence the young shoots are stopped twice or oftener during the season. This forces the one shoot to break into three, five, or many, and should the weather be favourable and the treatment skilful, the maiden tree at one year old may be almost as forward and often far more healthy than the same tree would have been at two years old under the old system. It may, but it also may not. The old plan was not wholly wrong. Though it sacrificed time, it seldom failed to gain strength and to make the entire framework of the tree nearly all alike, strong. By stopping the young shoots twice at the least, there is often a risk that the last made shoots may not be sufficiently ripened. Much may be done to form apricot and other trees in one season without recourse to much summer pinching or stopping, by the simple expedient of inserting three or even five buds in the stock instead of one. Then each bud may produce its one shoot only, and yet the tree be furnished the first season. Or by stopping each of the strongest or central shoots once, a better balance may be established between the upper and lower portion of the trees. This last was one of the vital points with the old cultivators. No watching was too minute, no care too excessive, if they could but force the lower branches to grow as strong or stronger than the upper ones. The removal of leaves, the bending down of the vertical shoots, the elevation of the side ones, were some of their more favourite methods of forming well balanced trees, and training and keeping them in symmetry and beauty. This is far too little studied in the modern experiences of running up apricot and other trees in a season.

The branches should not be laid in too closely—from 15in. to 18in. apart are good distances. Of course, in fan training the longer the branches grow the farther they diverge from each other. Hence the necessity for summer pinching or winter pruning to force each shoot to break into two, three, or more, so as to furnish the whole of the wall equally with bearing wood from base to summit. This stoppage or cutting back of the branches is also useful for reducing and moderating the size and strength of the shoots. If the young shoots are allowed to run through the season without check or stoppage, they might make fair fishing rods rather than good trees. By thus stopping and suppressing, as far as may be, the growth of the stronger shoots and encouraging the weaker ones, the strength of the tree will be pretty equally distributed



over every portion of it—a point of vital moment to the preservation of its health and symmetry, as well as the full development of fertility. This state reached, training may be said to end and the ordinary pruning of apricots begin.



## PRUNING.

PRUNING is of necessity a part of training, but after trees are grown into size and moulded into form, it is still needful to prune to preserve their health, symmetry, and fertility. This cultural pruning necessarily divides itself into that of summer and winter, that is, the wood is pruned in the making, and again after it is finished.

The pruning of cordon apricots does not greatly differ from that of other trees, excepting that the summer pinching and pruning are generally rather more severe. The object of this system of training is to concentrate as much fruit as possible in the smallest space. Hence the single or double stem is so managed as to be clothed with fruiting spurs throughout its whole length. Almost every wood bud is saved and converted into a fruiting spur by persistent pinching and summer pruning. In districts where apricots are specially short-lived, or subject to branch dying, this mode of training proves most profitable, as the cordons may be planted so closely as 18in. or 2ft. apart, and either trained vertically up or diagonally along or across the wall. Should a tree die, it is easily replaced, and there is but little loss of space or of time in consequence. The apricot thrives very well on the restrictive system, and cordons, summer pinched or pruned into form and fertility, continue in good health for many years.

### *I.—Summer Pruning.*

SUMMER pruning may be said to begin on the buds. Anyone looking at an apricot branch must at once see that there are far more wood buds on it than are wanted. Some of these may be wholly removed and others stopped when they have made about three leaves. The first process is called disbudding, and should not be carried so far in the case of apricots as peaches, inasmuch as apricots fruit freely on spurs, and thrive long and well on that system, whereas peaches do not. Disbudding should, therefore, be chiefly confined to what are called foreright

buds, that is, those on the top of the branches at right angles with the wall. It is obvious that if these are allowed to remain to grow into shoots or spurs there will be considerable difficulty and risk of breakage in bending such shoots down to the wall, and that the spurs would be placed at the greatest possible distance from its protecting influence. Either way the result would be as unsightly as inconvenient. And, as there is sure to be abundance of wood buds to be found on either side of the wood, those found on the top of it may be safely removed. The sooner, also, this is done the better, for, if left too long, the rubbing off of the buds may wound the bark, which is one of the surest means of producing gum. If left longer, and a knife is used to remove them, the larger wounds are likely to prove still more injurious. The sooner, in fact, disbudding is performed the better, not only for these mechanical reasons, but also for vital ones. By removing all weakly, ill-placed, or unnecessary shoots, the sap is then more freely diverted into those that are left, and they make more and better growth in consequence. The process of disbudding should be performed tentatively, and also from the head of the tree downwards. Remove all the strongest redundant buds first, and also stop those left on the vertical branches. This will check the outflow of sap and enable the weaker buds, and those on the lower and more horizontal branches, to obtain a fuller portion. In fact, it is chiefly by attention to such minute details as these that every portion of the tree is equally supplied with sap, and each branch becomes, and is preserved, alike healthful and fruitful.

Hardly has disbudding ended when summer pruning proper begins. This is also of two sorts—finger pinching and pruning; the first we have already adverted to, in regard to the conversion of superfluous wood buds into fruiting spurs. Stopped thus early and severely, these buds seldom develop into shoots, but into fruiting spurs. Occasionally, however, they throw out shoots, and these should be at once pinched off or out. The heads of other shoots are also often pinched rather than cut off. Either mode may be best, according to circumstances and the point at which new or more shoots are wanted. By merely pinching out the head of a shoot the young shoots are likely to be produced near the point at which it is beheaded. Stronger and better placed wood may often be obtained by cutting the young wood farther back. A branch, for example, may have grown 18in. long; by cutting off half of it, a better break or stronger young wood may be obtained than by leaving it full length. The main object of all summer pinching and pruning is the equal distribution of nearly uniformly strong fruit-bearing wood all over the tree, as well as the multiplication and

maturity of fruit spurs. For the accomplishment of these purposes these processes may be practised from April to August.

## *II.—Winter Pruning.*

WINTER pruning will be light or heavy, easy or difficult, very much in the ratio of the skill and thoroughness with which summer pruning has been performed. It consists mainly in the shortening of leading and other shoots, the removal of exhausted branches or bearing shoots, and the thinning or cutting out or back of weakly or exhausted spurs. Most cultivators leave the leading shoots of the main branches of apricots to run pretty freely in summer. At the winter pruning it is customary to cut these back to a foot or 15in. of young wood. The other and secondary shoots may also be shortened to about 6in. as a rule. In the shortening back of the past year's wood all unhealthy or unripened portions should be cut out. And a general rule of universal application is to cut back the weakest shoots the most severely, the strongest the least. A shoot a yard long might have 2ft. of it left; one a foot, perhaps, ought not to have more than 3in.

Then, of course, there are generally a good many exhausted branches to remove at the winter pruning. The first point, in fact, should be to take a general survey of the whole tree. Possibly one or more main branches may have died, or become weakly or unhealthy. If so, the removal of these will involve the unfixing and redistribution of the entire tree; the latter, again, will modify the pruning of most of it. There will be room for far more young wood, and, consequently, much less to remove; and supposing that no such radical changes are useful, there are generally a good many old shoots to remove. For though the apricot fruits freely on spurs, it is desirable to lay in as much young wood as possible; the shoots should be shortened to about 1ft. in length. As the apricot bears on the young wood of the previous summer, it is good practice to bring up another shoot from the base, or behind them on the main branches to succeed them. Where this has been done, numbers of these bearing shoots may be cut out boldly, to be succeeded by young wood. This mode of pruning virtually renews the young bearing wood of the apricot annually.

Finally, the spurs of the apricot, like those of most other trees, are apt to grow out too far from the wall, and also to become exhausted. The winter pruning furnishes the opportunity of cutting them back nearer home, and also getting rid of all the worn-out ones. Care must, however, be taken to make as few wounds and to keep them as small as possible. Few trees gum or canker on the heels of the knife so swiftly

and surely as the apricot. Hence the importance of placing these spurs in the most favourable positions at first, and also keeping them close to the main branches by vigorous and persistent summer pinching and pruning, rather than the slashing them off in winter. So dangerous, in fact, is the latter to the health of apricots that where many such spurs have to be cut out it is much safer to do it in July than at the winter pruning. It is safer still, however, not to do it at all; and as the apricot is grown for utility rather than ornament, and many of these unsightly spurs are marvellously fertile, they had better be left intact than any excessive pruning indulged in.

The best time to prune apricots in the open air is still an open question. As far as the trees are concerned, doubtless the sooner after the fall of the leaf the better; that is, say in October or November. But considering the precocity of the tree, the influence of early pruning on early flowering, the tenderness of the blossoms, and the severity of spring frosts, the chances of a crop are improved by pruning in February or March rather than in either of the last three months of the old year. Our rule for many years has been to prune our apricots when in full flower, and we seldom fail of a crop. But then, it must be added, that most of our pruning is done in summer, and that the winter pruning consists chiefly in the removal of any useless wood that may have been injured by the severities of the previous winter, and the cutting back of any of the young shoots that may have had their immature extremities frost-bitten.



## GENERAL CULTIVATION.

THE term general is here used most advisedly, for, of course, pruning and training may be said to constitute vital features of cultivation. But as these have been already discussed and explained, it is proposed to advert in this chapter to such important cultural points as protection, root and top watering and feeding, surface mulching, and treatment of the young wood.

### *I.—Protection.*

No fruit grown in the open air in our climate needs protection in the spring so much as the apricot. Not only does it blossom earlier than any other fruit tree, but the blossoms are more tender and easily injured

than that of the peach. This may partly arise from the thinness of the apricot flowers and their habit of opening their eyes so wide. Be that as it may, it is almost hopeless to expect a crop of apricots in the open air as the seasons have been of late, unless the blossoms are protected by some means from spring frosts. The best of all protectors are wide overhanging copings and flued walls. The former intercept the radiation of heat in the open air, the latter create artificial warmth just where it is most needed, in direct contact with every part and portion of the tree. It is to this dual protective power that the apricots on the gable ends of cottages owe their general immunity from spring frosts and almost absolute certainty of a yearly crop; and cultivators on a larger scale could hardly do better than follow such successful examples. The general abolition of flued walls has proved, in fact, a decided loss to external horticulture in our fickle climate. A few days' and nights' gentle firing were generally sufficient to carry apricots, peaches, nectarines, and choice pears safely through spring frosts. In the absence of fire heat, a heavy wide coping and other expedients must be adopted. Among these, temporary wooden copings, from 11in. to 2ft. wide, laid on iron brackets, are perhaps the most potential. These should not be put up till the trees are just bursting into bloom, and may be safely removed about the end of May. If supplemented by a tolerably thick woollen net, a sheet of hunting, frigidomo, mats, or other protectors, the trees may be pronounced safe, but wooden copings alone are often sufficient.

Glass copings are also much recommended and used, but these have less than a third of the protective power of wood; and, indeed, unless the glass is covered, or rendered partially opaque—with covering or paint—it resists but little frost. It is, however, useful in keeping the blossoms dry, in which state they resist frost better than when wet. Faced with nets or canvas as recommended for wooden copings, of course the overhanging glass becomes more efficient. Copings of stone, bricks, tiles, cement, straw, canvas, slate, &c., are efficient in the ratio of their width and impenetrability. The wider and the slower they conduct heat the better. The chief objection to all ponderous opaque permanent copings is that they add so much to the tenderness of the trees, and not seldom thus increase the power of the cold to injure them in a greater ratio than they ward off cold.

The same objection holds good of permanent canvas, hunting, net, straw, or mat screens. It is often better not to protect at all than with such materials. With every gleam of sunshine the inclosed space is converted into a sort of furnace, that forces the blossoms out with a rush and enfeebles them and the leaves. When the

cold nights succeed the days' heat the slightest frost proves fatal to the trees.

All such protection should be portable, although, with proper ventilation, it may not prove as serviceable in shutting out the sun by day as in keeping out the cold by night. But the sun rays should be screened off, not shut out, and in sunless weather all shading should be removed. The hardier the trees and their blossoms can be kept the greater the chance of a crop. Hence portable textile protectors should never be used, unless when absolutely necessary. They should be let down at the last moment, and pulled up the moment the danger is over.

Many who shrink from all this labour spread a few fish or other nets over the trees, and leave them for good. That sort of protection casts but little shadow, and yet affords considerable resistance to the radiation of heat. This is assuredly one of the easiest, if not one of the most efficient, modes of protecting apricots and other fruit trees.

Another simple and rather more efficient method consists in the making of rough straw bands with long loose straws from 9in. to a foot in length, depending from the bands as thickly as practicable. These are then suspended from poles in front of the wall, the bands being placed so closely together along the walls that the loose straws of each upper band touch the band under it. These bands, though somewhat rough and littery, form good and efficient protectors against frost.

The last means of protection to be noticed is really the most primitive as well as the most potential. It has often saved a crop when all other means have failed. It consists in thinly covering the trees with a sprinkling of spruce branches, yew boughs, or those of almost any other evergreen shrub or tree. The two first are, however, the best, as they are easily placed thinly over the trees, and their leaves gradually fall, so that by the time the apricots are safe the protecting boughs have depleted so much, that their shade has done the trees but little injury. This rough-and-ready mode of protection affords it where it is most needed—directly over the bloom—and hence, no doubt, its power and efficiency. Such means of protection also cost nothing, and are within reach of all.

## *II.—Root Watering and Feeding.*

THIS is also an important part of the successful cultivation of the apricot. Such trees, backed up against walls, on sunny days, even in the spring, lose an enormous amount of sap by evaporation. As the days lengthen and the sun strengthens and the area of evaporating foliage enlarges, of course the loss also becomes greater. So long as

the roots are plentifully provided with food and water and the atmospheric conditions are genial; the greater the loss, the more growth, and the better for the tree. But let the supply of water fail, and the tree becomes a victim to weakness, the prey of disease. It is, therefore, of the utmost importance to see that the substance of the border is not dry. This often happens when the surface seems moist. A thorough soaking of soft rain or manure water will often save a crop, and restore the trees when all other surface remedies or appliances fail. Dryness at the roots often induces root fungus as well as causes mildew, and no two evils can well be worse for apricots. The simplest remedy for both is to water them out, or, better still, prevent their development by keeping the trees fully fed. Poverty or paucity of food or water weakens the trees so much as to render them an easy prey to diseases of all kinds, while they also starve the fruit into a small size and an inferior quality. Surface sprinklings overhead with the garden engine in the afternoons of bright days are also most useful cooling refreshers for the tree; tends to keep them clean, and to maintain their vigour. These overhead sprinklings recoup the trees for the expenditure of their juices during hot sunshine, cool the hot brick walls in the summer, and enable every leaf and branch to make good during the night its loss of force and fluid by day.

Nor must it be forgotten that apricot roots need food as well as water. It is seldom wise to add manure to the soil in which apricots are planted. But, on the other hand, the starving regimen is often carried too far. An annual crop of flowers, leaves, fruit, succession wood, takes a good deal out of the earth, and one of the simplest, safest, and easiest methods of replenishing apricot borders with food is to top-dress them with compost or mulch them with manure. There are few better composts for the surface dressing of apricot roots than one composed of three parts maiden loam and one of thoroughly decomposed sheep, cow, or farmyard manure. On light poor soil the proportion of cow dung might often be increased to the great benefit of the trees. The manure should, however, be two years old before it is used. Frequent and often, say, annually, should be the rule in regard to such dressings, rather than much at any one time. About 2 in. thick is a good depth for such top dressings, and as they are mellowed and decomposed by the weather, of course they still further shrink in depth. Every shower of rain, however, washes in their enriching properties, and very light annual dressings are found sufficient to keep up the health and stamina of the largest trees. Manure water, made of such manures, or guano, or house or yard sewage of moderate strength, also form capital food for the roots of apricots and other such trees.

A surface mulch of manure performs several useful functions, besides

that of feeding the roots. For example, it keeps the roots warm in winter and cool in summer, and conserves the moisture and strength of the soil. These qualities are of far more moment to the roots than the mere providing of fresh food, for the roots of trees are not seldom checked or starved by sun, air, and drought. Check these from robbing them by an impervious mulch of manure 2in. or 3in. thick, and they find sufficient food. Besides, the mulching material should also be enriching on poor soils. Longish farmyard manure is the best material for this purpose, alike in virtue of its mechanical qualities and chemical constituents. But any good non-conductor, such as cocoa fibre refuse, spent tan, rotten straw, short grass, &c., will serve a good many of the best purposes of a useful mulch. And where none of these are available, soil itself may be converted into a useful and efficient mulch by simply keeping it loose on the surface to a depth of about 2in. or 3in. This prevents it cracking, resists the penetrative force of the sun's rays, and powerfully conserves the moisture and manurial or feeding qualities of the borders.

### *III.—Treatment of the Young Wood.*

THE moment the trees are cleared of their fruit, the whole attention of the cultivator should be directed to the maturation of the wood. All superfluous shoots should be removed, any excess of growth on the shoots left cut back, and every effort made to perfect the wood already made, rather than force the tree to make more. Unless in very exceptionally dry seasons, no more water should be given to the border, and should the tree reveal a tendency to grow rather than ripen, the surface mulchings ought also to be removed, so as to expose the roots to some extent to the drying, or checking, influences of the autumnal sunshine. Any useless spurs should also be cut out, and those left thinned, so much as to allow the sun to exert its full ripening force on them. It is seldom desirable or safe to root-prune apricots, but in the case of young trees, bent on wood making late in the season, the severing of a few of their strongest roots would prove the most powerful means of thoroughly maturing their wood. Apricot trees in good health and full bearing will, however, seldom need such radical treatment to induce them to ripen their wood, and produce those fine brown shoots, studded thickly with prominent buds, which are the delight of cultivators and the surest harbingers of abundant fertility.





## CROPPING.

### *I.—Thinning.*

THE thinning of the fruit needs early and careful attention with apricots. Hardly any stone fruit sets or swells off so heavy a crop as the apricot if left to itself. Should the blossoms escape the frost almost every one sets and swells, until the whole crush and crowd each other to the ruin of the crop and the crippling of the trees. Neither does the apricot possess equal powers of self-thinning, to the peach, nectarine, and plum. The fruit, in a word, must be thinned by the cultivator, or overcrowded into puniness or deformity.

Unless where green apricots are wanted for preserving or tarts the thinning of the fruit should be begun and completed pretty early. The best stage for using green apricots is when they reach the size of very small walnuts, a week or a fortnight before the stones begin to harden; but the thickest clusters should be thinned off long before they reach this stage. Apricots may, however, be left much closer together than peaches. The average of 3in. apart may be chosen for a maximum yield. Slight compression of the fruit against each other does not injure it for preserving, and some varieties, such as the Khaisha, Breda and others, are not so large as the Moorpark, Shipleys, &c. Sufficient space should be left between apricots intended for dessert to hinder them from crushing each other. It is also important to leave the best-placed fruits and those that will not be bruised by the branches as they advance in size. For though epicures in apricots contend that those jammed fruits are invariably the most luscious—yet have they a poor mismanaged appearance at table; and as to quality, it may be stated, as the result of twenty-five years' experience, that the jamming is not worth the candle.

### *II.—Ripening.*

SOME of the larger varieties of apricot possess the very troublesome unbusinesslike quality of ripening their fruit piecemeal, a bit at a time. The crown of the fruit not seldom mellowes into rottenness, while its base is yet hard and acid. These mellow crowns, with their luscious odour, also attract wasps, flies, &c., which no sooner light upon and taste them than decomposition sets in on the ripe parts. In this way many of the

finest fruits are ruined and never reach table. This unequal ripening of the fruit is much worse some seasons than others. It is generally, however, more or less manifest. A perfect remedy is hardly within reach. A good deal may, however, be done to modify or prevent the worse evils of unequal maturity by slightly shading the crown, and removing all shade from the base or unripened side of the fruit.

As the apricots approach maturity, overhanging leaves or branches of young wood that shade the fruit should be removed as much as possible from all the later portions of the fruit; at the same time a fluffy shade of cotton wool, or frigi-domo or muslin, may be fixed over the riper crown and other portions. This is less difficult in practice than it seems on paper, for generally one side of the apricot is more mature than the other, as well as the crown of the fruit. The shade may therefore be tucked round the fruit, and fixed over the riper side of it. Of course the process takes time, but it answers, and is the means of saving many of the finer fruits. In hot or dry seasons and localities, similar results may be more easily obtained by the use of a canvas or other shade, from eleven to two o'clock on very bright days, and the removal of the overshadowing leaves from the greener portions of the fruit as already recommended. The fruit of the apricot is not infrequently semi-roasted on the crown by a sort of sunstroke. Prevent this by shading for a few hours in the heat of the day, and the fruit is saved, and will ripen more equably.

### *III.—Gathering.*

APRICOTS should be handled with care, and seldom gathered until quite ripe. Some, however, gather them almost before any portion is ripe, and lay them on sunny shelves with their greenest portions uppermost. They are apt to shrivel, and also lose rather than gain flavour under such treatment. Many, however, leave the fruit too long on the trees. Apricots should always be gathered, and not allowed to drop; in fact, they will seldom drop till they are some way past their best. Apricots for preserving should be gathered quite dry and with the sun upon them. For dessert they should be gathered in the morning and placed in a cool room or closet till wanted. The practice of gathering such luscious fruits in the afternoon, and serving them up for dessert quite warm with sunshine cannot be too severely condemned. Gathered with the morning dew yet upon them, laid in single file in flat baskets, stored in a cool cellar till wanted, and then garnished with their own leaves, the apricot ranks only second to the peach and nectarine as one of the most beautiful

as well as most delicious of all our stone fruits. Its golden colour also gives a rich glow to the dessert possessed by no other fruit but the prince of all dessert fruit, the pine apple.



## CULTURE UNDER GLASS.

THE apricot will hardly bear forcing. It is more sensitive to heat than almost any other of our semi-hardy fruits. Hence, though flowering so early as always to have its blossoms endangered—too often totally destroyed—by spring frosts, it has seldom been extensively cultivated under glass, hardly ever subjected to forcing, like peaches or nectarines. Practically, it is found that a confined atmosphere or the slightest excess of heat brings its blooms off in showers, and this mars all prospect of fruit as effectually as if they were blackened by the frost. Still, apricots may be very successfully grown under glass in northern latitudes and cold localities. This is, in fact, by far the best mode of growing them there.

Apricots under glass are generally free from insects. Should red spider appear, it is proof that the roots or the atmosphere, probably both, have been too dry. More moisture and a dash of sulphur over the leaves are the surest remedies. Aphides never attack apricots; and under glass curl, mildew, &c., are also unknown. Branch dropping seldom occurs; gum, however, sometimes appears. It is safe practice to grow several small plants rather than a few large ones, as the apricot is apt to go off suddenly at times alike under glass and in the open air without any obvious cause.

As to the modes of growing them under glass, there are three general methods—the trees may be trained on trellises or walls, grown as natural standards, tall or dwarf, and as bushes, either planted out or in pots.

### *I.—Glass Walls and Houses.*

FIXED glass roofs, with portable fronts, are also of the highest service in carrying apricots through the danger period of flowering and setting, even in warmer situations. What have been termed glass walls—that is,

walls covered with screens of glass—have been found very serviceable to apricots when left open enough to allow of the freest possible circulation of air on almost all occasions when the thermometer is above the freezing-point. The necessity for thorough ventilation and a low temperature for apricots under glass suggests the importance of growing them in structures by themselves. Mixed with peaches and nectarines in peach or orchard houses apricots seldom do well. But grown on glass walls or in houses devoted to their cultivation, the apricot may set freely and produce capital crops under glass. Some of the best results have been obtained by fixing glass lights, 5ft. or 6ft. wide, under the coping of the wall, and resting them on a wall plate in front, 2ft. or 3ft. lower than the top of the wall. The wall plate is supported by stakes or posts at convenient distances. Between these portable glass lights may be fitted in. These should be opened more or less every day and night, unless the air is actually under 35deg., until the blossoms are set and the young fruit has fairly started into free growth.

Instead of glass fronts, many use canvas, frigi-domo, woollen netting, or thin mats. These, if not too close in their texture or too dense and opaque in their substance, answer well. Sufficient air passes through them to keep the inclosed atmosphere in constant motion, and yet enough heat is retained to exclude frost in ordinary seasons. During frosts of extraordinary severity, however, it will be needful to cover the roof lights with mats, and to double clothe such open fronts with extra canvas and mats.

Another simple mode of growing apricots successfully under glass roofs is to have both sides of span-roofed houses or the front of lean-tos enclosed with evergreen hedges of yews, arbor vitæ, or box, instead of walls or textile screens of any sort. Beech hedges have also been used for this purpose, and as the beech as a hedge mostly retains many of its old leaves until the new ones come, this, though a deciduous plant, generally answers well. Even when denuded of leaves, it is marvellous what an amount of cold air a thick screen of closely interlaced bare boughs of beech will keep out. The principle underlying all these hedged sides of glass roof is the same—considerable shelter with constant circulation of the internal atmosphere.

Of course, it is also possible to grow apricots in common glass or orchard houses, glazed and even heated in the usual manner. When artificial heat is used to exclude severe frost the utmost care and the greatest skill are necessary. The least excess is fatal to the setting of the blossom, and loosens it so effectually that it falls off in showers. Even closely glazed unheated houses lead to numerous failures, unless most carefully and promptly ventilated before the sun sensibly raises

them many degrees in the morning. With prompt and careful attention, however, to these two details—a very moderate heat and abundant ventilation—apricots may be grown to the highest perfection under glass.

## *II.—Trellises, Bushes, and Standards.*

THE apricot under glass is seldom trained on trellises. The more common practice is to cover the wall with fan-trained trees, as in the open air. It is also customary in glass cases, however, of sufficient width, to plant a row of dwarf bush trees along the front of the house. By keeping these dwarf they shade the wall but little, especially as a path a yard or so in width is preserved between them and the wall. These fruit trees, being pretty close to the front openings or ventilators, generally set their fruit freely and do well. Trellises may also be used, and should be raised pretty close to the roof for apricots, so that they may enjoy as much light as our climate affords in the early spring.

In lofty orchards or other houses the apricot may be grown as a standard or half standard. Treated thus, the trees should be allowed considerable freedom of growth and diversity of form. The clear stems may range in height from a yard to 6ft. or 7ft., according to the height of the houses. The size of the tops will vary also with the size of the house, the distance between the trees, and other circumstances. Trees from 6ft. to 8ft. through, and well furnished with bearing wood, and fruitful spurs, have a fine effect, and prove very productive. Span-roofed orchard houses, with tall standards in the centre and dwarfs on either side, look well, and yield good crops under careful management. But it is very seldom, as already remarked, that entire houses are devoted to apricots. Hence bush trees are far more plentiful than either fan-trained or standard ones. These are mostly real bushes rather than pyramidal in form. The apricot does not, in fact, take kindly to this latter, but seems to prefer running into squat and more irregular forms. By careful training, however, bush or dwarf trees may be moulded into good shapes. The apricot is generally very fertile as a bush tree, and this and a very dwarf standard is the form mostly used for its pot culture. Rather low houses, with the front borders furnished with dwarf trees generally do well and yield more fruit for the area occupied than any other form of tree.

### *III.—Routine Treatment.*

THE soil for apricots under glass need not differ from that used out of doors. As, however, climate, the chief factor in the ripening of the wood, is under more complete control, the loam may be a little stiffer indoors than out; and the borders should not be less than 2ft. or 30in. in depth. The trees should be planted early, the middle of October or beginning of November at latest. They should not be allowed to suffer for lack of water in winter. Winter drought at the roots is almost as fruitful a cause of bud or flower dropping as spring frosts, and as the glass shades off all the natural rains, it is absolutely necessary that artificial waterings should take their place or supplement them. Fresh planted apricots should also be frequently syringed overhead in winter to prevent the wood or buds being robbed of their moisture by the compound process of deprivation through crippled roots and the excessive evaporation of the unnaturally dry atmosphere of glass houses. After the trees are fully established, however, less overhead sprinkling is needed, and it is necessary to avoid all excess of moisture in the atmosphere during the flowering and earlier stages of the setting periods. Not a few crops of apricots under glass may be said to be washed off, while others are choked off through a close stuffy atmosphere, or a sudden and severe alteration of temperature and of moisture alike in the earth and air.

During all the earlier stages of growth and until the fruit are stoned a temperature of 45deg. should not be exceeded. After that stage the fruit will bear a heat of 50deg. or 55deg. It is hardly safe, nor, indeed, desirable, to exceed the latter under glass, and unless abundance of air is given, 55deg. may bring off the fruit, even at an advanced stage.

Neither must the trees lack water at the roots. Once allowed to flag, the chances are they will sulk and shed their crops in consequence. Any excess of water is equally injurious. The leaves turn yellow, the fruit either drop or become comparatively worthless, and refuse to finish of good quality. With properly drained borders, apricots in full bearing and free growth under glass should have a thorough soaking when dry, which will probably be at intervals of fourteen days, during the height of the growing season. Should the trees be heavily cropped, manure water may be given at every alternate watering. It is also good practice to mulch the surface of heavily cropped trees with 3in. or 4in. of good dung.

Every watering applied on such a surface will wash down some portion of the manure to the roots, and thus furnish them with fresh food.

Over-cropping must, however, be avoided. Apricots often set and swell enormous crops; but, under glass especially, the object should be quality and size, rather than mere number of fruit. They should, therefore, be freely thinned to distances of from 4in. to 6in. apart at the most. The fruit will then grow to full size, which is often larger under glass than on the open wall.

As the apricots approach maturity all excess of young wood that may have unduly shaded the fruit, and so lowered their quality, should be removed. The fruit can hardly be too fully exposed to the light during its last stages. The removal of shoots, &c., must, however, be done tentatively. If too many leaves are taken off at once the fruit may be scorched with the sun, which may also convert the unripe pulp into something akin to brown leather, which will never ripen afterwards. The removal of all excess of shade will also ripen the buds at the base of the shoots as well as those on the spurs.

#### *IV.—Cultivation in Pots.*

THIS does not vary in any essential particular from that already given. Twelve inch pots are the most convenient size for handy plants, though for larger plants, of course, larger pots will be necessary. The earlier the trees can be potted up the better. 1in. or 2in. bones should be used for drainage. The whole capacity of the pot will thus be furnished with feeding matter for the roots. With abundance of food and water, it is astonishing what nice plants may be grown, and how many splendid fruits may be gathered from them in pots. The portability of apricots in pots also places other great advantages within reach of the cultivator. The plants may be sheltered under glass until their fruit is set and all danger from spring frosts is over, and then placed in warm sheltered situations out of doors to finish. This plan of housing fruits to set and then moving them out to finish has been rather extensively used for choice pears. It is equally or more useful for apricots, which would swell and ripen well on south borders in most localities if not placed out till June.

The growing of apricots in pots also enables many to have a few of these choice fruit under glass who could not otherwise grow them. Few, comparatively, can devote a house to apricots, however fond of the fruit or anxious to grow them; but anyone with a greenhouse, however small, might, if so minded, grow one or more trees in pots by placing them in the coolest and most thoroughly ventilated places.

## DISEASES, INSECTS, AND ENEMIES.

THE apricot, under good treatment, is far less subject to disease than the peach or nectarine.

Cleanliness and care are the best recipes against all insects. No dirty crevices, old shreds, or ties should be left as hatching grounds for their eggs, and a frequent forcible wash with the garden engine is most useful for washing out insects and cleansing and invigorating the entire trees. Some recommend doing this in severe frost, so that the water becomes frozen in the crevices and against the branches. Doubtless, the cold may thus kill a few insects, but it is equally likely to injure the bark and young wood of the trees, and result in gum, canker, and branch dropping, so that the ice cure for troublesome insects is really not to be recommended.

### *I.—Limb Perishing.*

ON many soils, and in some situations, the tree is rather short-lived. This arises chiefly from a special disease, to which the apricot is more or less liable everywhere, but peculiarly subject in certain places. This is called limb or branch perishing. It often comes suddenly, with little or no warning, and probably one of the chief leaders of the tree, or it may be a whole division or side of it, perishes. At times this disease follows on the heels of canker; at others it happens without any apparent outward cause. It seems impossible to prevent or cure it. Careful culture, good soil, a moderately cool aspect, the protection of the bole and chief leading branches with hay bands or other non-conductors, are among the best means of preventing this very serious disease. Such protection of the bole and main branches is as useful against cold as against an excess of heat, and protects alike from frost bite and sun-stroke.

### *II.—Canker.*

CANKER is also apt to infect apricot trees. The best palliative is the careful removal of the cankered part, and the dressing of the wound with sweet oil. This has a softening influence on the bark, which at times helps it to heal over the injured portion, whilst it also shuts the moisture out of the disbarked part of the tree.



### *III.—Gumming.*

THIS is far more troublesome than canker, and is also more injurious to the trees. It often arises from, or is aggravated by, the planting of the trees in over-rich soil, the production of grose wood, and the consequent severe cutting back of the same; and sunstroke and frostbite are likewise frequent causes of gumming. It is difficult, if not impossible, of cure. The wise cultivator will avoid all the supposed predisposing causes of gumming, and replace trees in which this disease manifests itself as soon as practicable by other and healthier ones.

### *IV.—Blister.*

THE apricot is hardly so subject to blistered leaves as the peach, though in cold springs the leaves are often curled up and rendered quite useless for all elaborating purposes from blistering. Apricot blistering is, however, seldom produced or aggravated by aphides, as generally happens with peaches, but results from cold alone. Efficient protection is therefore the best remedy against this crippling malady, which necessarily weakens and frequently kills the trees. The worst of the blistered leaves should be picked off as soon as possible, and the others encouraged to grow.

### *V.—Mildew.*

THIS, as a rule, comes after, or is associated with, leaf curling or blistering. Persistent dusting with flowers of sulphur alone, or equal parts hot lime and sulphur, is the best antidote to mildew. Mildew, however, may also proceed from poverty or dryness of soil, and in such cases it may be watered or fed out with good soakings of manure water. After a few dustings of sulphur, several copious overhead syringings will not only remove all traces of mildew, but also prove a useful remedy for mildew itself.

### *VI.—Aphides and Red Spider.*

APHIDES seldom or never attack apricots, and if they should, a dose of tobacco water, or a pinch of dry snuff from a puff or dredge box on the wet leaves makes a speedy end of them. Red spider seldom attacks apricots under good management. Where it appears, sulphur proves the best remedy. Like mildew, red spider is often the result of a starving regimen and overcropping. Surface washing overhead with the garden

engine is at once one of the surest antidotes, and most certain of all cures for red spider.

### VII.—Caterpillars.

VARIOUS caterpillars and beetles also at times attack the apricot, the most common and destructive being a small greenish yellow caterpillar (*Ditula angustiorana*). This and other caterpillars feed on the leaves, and with a sort of glutinous web bind fragments of them together to form a sleeping place wherein to pass the pupa state from which the perfect moth comes forth in June. By carefully examining the trees the moment any traces of such webs are seen the caterpillars may be destroyed, and an end put to their mischievous depredations.

### VIII.—Ants.

THE ripe fruit of the apricot has more enemies than the trees. Being remarkably luscious, with a most delicious perfume when fully ripe, it attracts hosts of enemies, among the more destructive and formidable of which are ants. These on light warm soils are the worst of all apricot pests. Small individually, it is almost impossible to exaggerate the destructive powers of ants in masses. They will consume a fine apricot in a few hours, leaving absolutely nothing but the bare bones—the stone. Their nests ought to be sought for and destroyed with boiling water if possible, but if in holes in walls, etc., coal or other tar will smear them in. Fresh guano is also most distasteful to ants, and often makes them shift their quarters, if it does not destroy them. They may also be decoyed into sweet and oily baits, and so fixed in and destroyed. Sugar and sweet oil prove good baits for rendering the ants powerless, and when they get into a saucer of honey they very seldom get out again. Disturbing and destroying their eggs and nests also makes them decamp. Fowls and pheasants are also fond of ants and their eggs, but they must not be encouraged near apricots when ripe, or these ant cures would prove worse than the disease.

### IX.—Earwigs.

EARWIGS are hardly second to ants in destructiveness. They are wonderfully fond of apricots, and often reduce the finest fruit to a mere shell before their depredations are detected. Traps of reeds, decoys of cooked potatoes in small pots covered with moss, are about the simplest and

readiest means of destroying earwigs. Old holes should be filled up, and *débris* removed from about the trees, so as to destroy their eggs, and deprive them of shelter. Black beetles are also at times formidable, and may be reduced and destroyed by watchfulness, care, and cleanliness.

### *X.—Wasps, Flies, &c.*

WASPS, hornets, flies, bees, ladybirds, may all be decoyed and destroyed with bottles half filled with beer. The vinous scent of this on hot walls attract all flying pests so powerfully that most of them will leave the best apricot for a dart at the beer trap, and once in they never get out again. The bottles should be emptied of their dead every morning to keep them sweet and efficient. The simplest way is to pour the beer into a jug through a sieve, the latter intercepts the dead insects which should be buried, as in masses they smell badly. The beer is then returned to the bottle, and continues to be used until it becomes too offensive to allure the wasps, flies, moths, butterflies, &c.

### *XI.—Birds, Rats, &c.*

BIRDS, where they abound, must be netted out. It is, however, impossible to net out rats, mice, and squirrels, and these must be kept down by trapping or other means. One of the best means of deterring intruding bipeds from clandestinely gratifying their sweet tooth for apricots is to keep the border carefully raked, so that every footprint leaves a tell-tale behind it. This smooth impressible surface is often effectual against boys, whom no mere precepts or general preaching will restrain, and may prove useful to amateurs with large families and troublesome neighbours.





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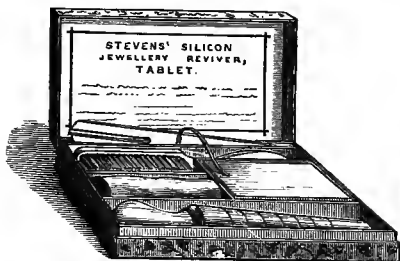
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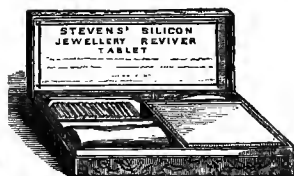
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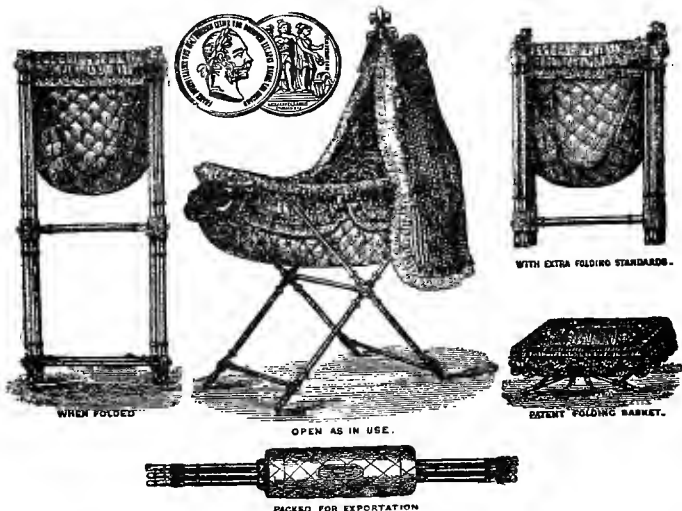
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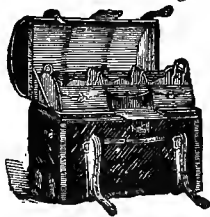
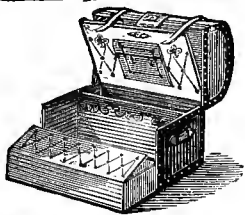
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